Sub R1
C1

1. (Twice amended) A method for producing vanillin in cultured *Vanilla planifolia*, which comprises:

a) providing a tissue culture of said *Vanilla planifolia*; and

b) supplementing the culture with a compound selected from the group consisting of malic acid, 3,4-dihydroxybenzaldehyde, a combination of malic acid and 3,4-dihydroxybenzaldehyde, and glycosylated lysozyme, in an amount effective to result in the vanillin production in the cultured *Vanilla planifolia*.

C2

6. (Amended) The method of claim 3, wherein the culture is further supplemented with about 0.01 to about 5% by weight of a compound selected from the group consisting of succinic acid, oxaloacetic acid, citric acid and pyruvic acid.

C3

9. (Twice amended) Cultured *Vanilla planifolia* cells, produced by the method of claim 1, wherein, at 15 days in culture, the cultured cells produce at least twice as much vanillin as cells cultured 15 days under equivalent conditions but which were not supplemented with the compound.

10. (Twice amended) The cultured *Vanilla planifolia* cells of claim 9, wherein, at 15 days in culture, the cultured cells produce at least ten times as much vanillin as cells cultured 15 days under equivalent conditions but which were not supplemented with the compound.

Sub D1
C4

31. (Amended) A cell culture comprising *Vanilla planifolia* cells, supplemented with an elicitor of vanillin synthesis selected from the group consisting of malic acid, 3,4-dihydroxybenzaldehyde, a combination of malic acid and 3,4-dihydroxybenzaldehyde, and glycosylated lysozyme, wherein, after 15 days in culture, the cell culture produces at least twice as much vanillin as cells cultured 15 days under equivalent conditions but which were not supplemented with the elicitor.

32. (Amended) The cell culture of claim 31, which, at 15 days in culture, produces at least ten times as much vanillin as cells cultured 15 days under equivalent conditions but which were not supplemented with the elicitor.